

INDEX OF PLANS

SHEET No.	DESCRIPTION
1	TITLE AND LOCATION MAP
2	CONSTRUCTION AREA SIGNS
3	PAVEMENT DELINEATION QUANTITIES
4-6	REVISED STANDARD PLANS

STRUCTURE PLANS

7-9	ROUTE 60 BRIDGES
-----	------------------

THE STANDARD PLANS LIST APPLICABLE TO THIS CONTRACT IS INCLUDED IN THE NOTICE TO BIDDERS AND SPECIAL PROVISIONS BOOK.

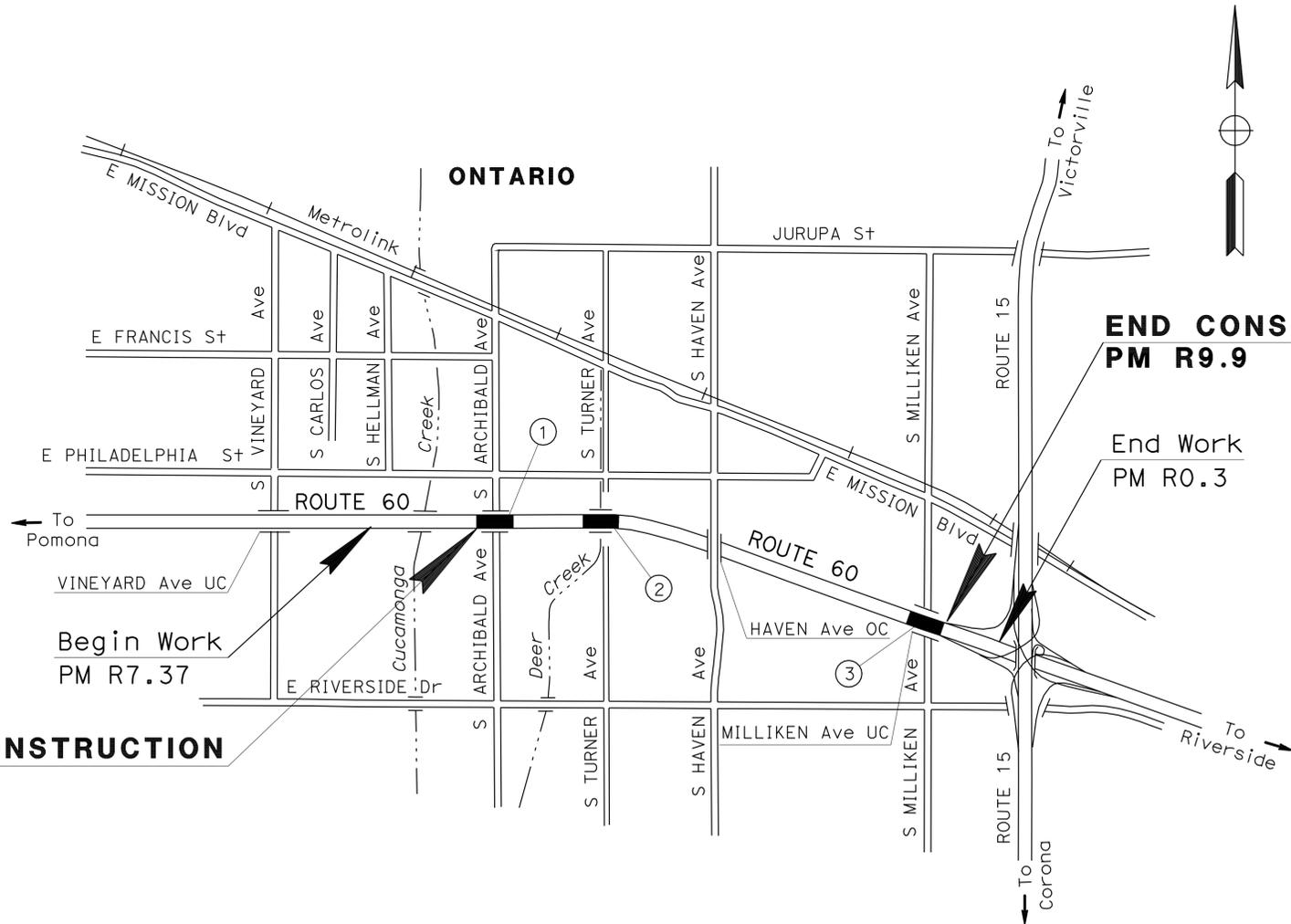
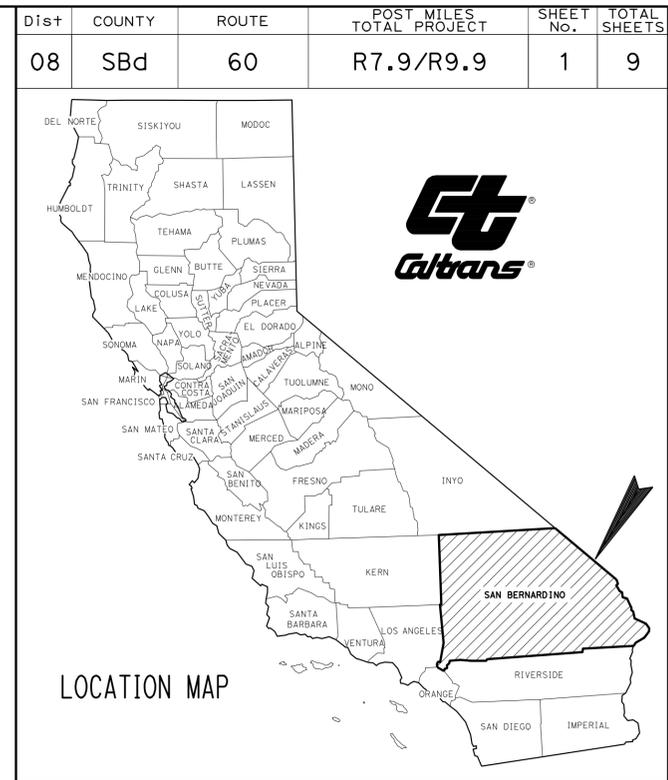
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

PROJECT PLANS FOR CONSTRUCTION ON
STATE HIGHWAY

IN SAN BERNARDINO COUNTY
IN ONTARIO

FROM 0.3 MILE EAST OF VINEYARD AVENUE UNDERCROSSING
TO 0.5 MILE EAST OF MILLIKEN AVENUE UNDERCROSSING

TO BE SUPPLEMENTED BY STANDARD PLANS DATED MAY 2006



END CONSTRUCTION
PM R9.9

End Work
PM R0.3

BEGIN CONSTRUCTION
PM R7.9

LOCATIONS OF CONSTRUCTION

Loc No.	BRIDGE No.	BRIDGE NAME	PM
①	54-0841	ARCHIBALD AVENUE UC	R7.87
②	54-0842	LOWER DEER CREEK	R8.37
③	54-1070	MILLIKEN AVENUE UC	R9.94

PROJECT MANAGER
CATALINO PINING

DESIGN ENGINEER
MINLUNG HO

12-9-09
PROJECT ENGINEER
REGISTERED CIVIL ENGINEER
DATE
MINLUNG HO
No. C 68641
Exp. 9-30-11
CIVIL
STATE OF CALIFORNIA

January 25, 2010
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."

NO SCALE

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	2	9

Sidhartha Chowdhury 12-9-09
 REGISTERED CIVIL ENGINEER DATE

1-25-10
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

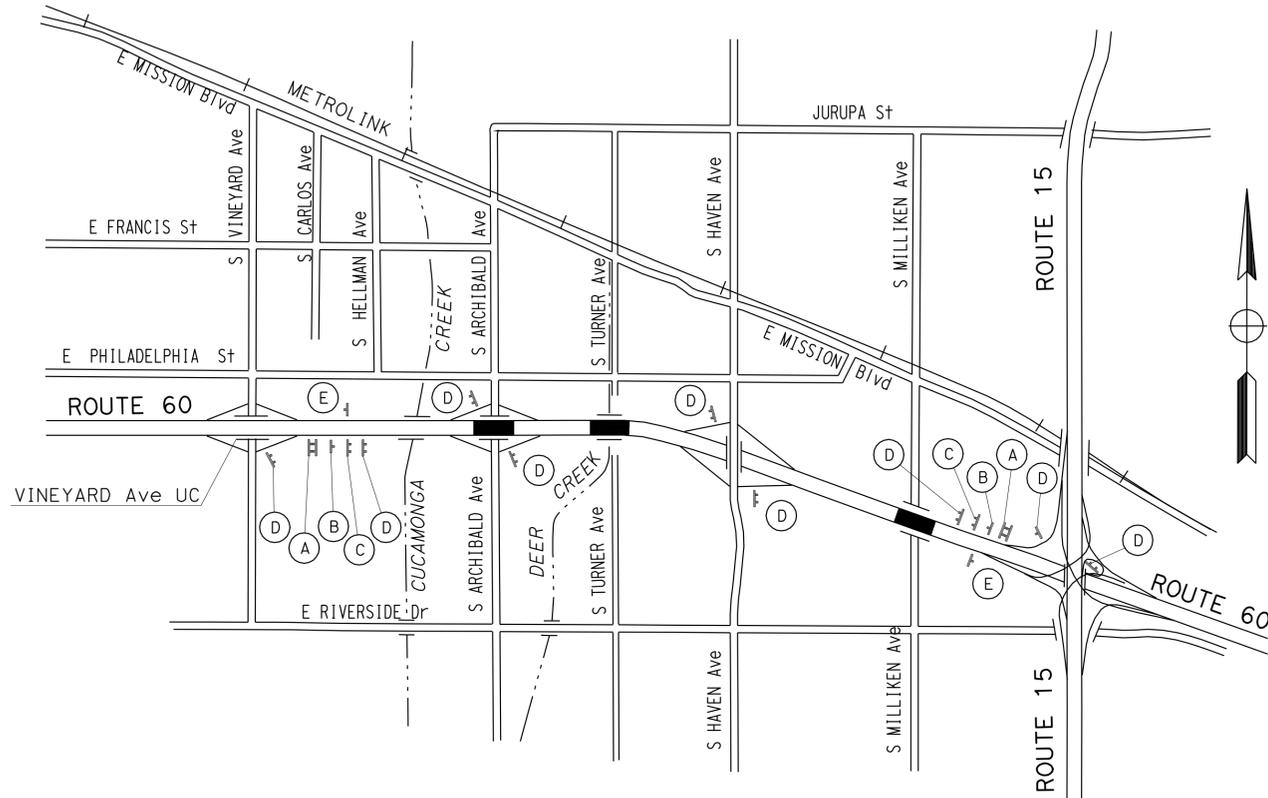
REGISTERED PROFESSIONAL ENGINEER
 S. CHOWDHURY
 No. 55418
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

NOTES:

1. LOCATIONS OF CONSTRUCTION AREA SIGNS SHOWN ON THE DRAWINGS ARE APPROXIMATE. EXACT LOCATIONS WILL BE DETERMINED BY ENGINEER.
2. REFER TO STANDARD PLAN T10 AND T16 FOR LANE CLOSURE REQUIREMENTS.
3. MESSAGE IN PORTABLE CHANGEABLE MESSAGE SIGNS SHALL BE AS DETERMINED BY THE ENGINEER.

LEGEND

- 1 1 POST SIGN
- 2 2 POST SIGN
- H PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)



STATIONARY MOUNTED CONSTRUCTION AREA SIGNS

PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)	
SIGN SYMBOL	(EA)
(A)	2

SIGN SYMBOL	SIGN CODE	PANEL SIZE	SIGN MESSAGE	No. OF POST(S) AND SIZE	No. OF SIGNS
		(In X In)		(In X In)	(EA)
(B)	G20-1	36 X 18	ROAD WORK NEXT 2 MILES	1 - 4 X 4	2
(C)	C40A(CA)	48 X 48	TRAFFIC FINES DOUBLED IN WORK ZONES	2 - 4 X 6	2
(D)	W20-1	36 X 36	ROAD WORK AHEAD	2 - 4 X 6	9
(E)	G20-2	36 X 18	END ROAD WORK	1 - 4 X 4	2
TOTAL					15

CONSTRUCTION AREA SIGNS

NO SCALE

CS-1

THIS PLAN ACCURATE FOR CONSTRUCTION AREA SIGN WORK ONLY

RELATIVE BORDER SCALE IS IN INCHES



USERNAME => frrmikes1
DGN FILE => 8014901a001.dgn

CU 08381

EA 0L4901

x
x
x
x
x
x
x

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	3	9

Sidhartha Chowdhury 12-9-09
 REGISTERED CIVIL ENGINEER DATE

1-25-10
 PLANS APPROVAL DATE

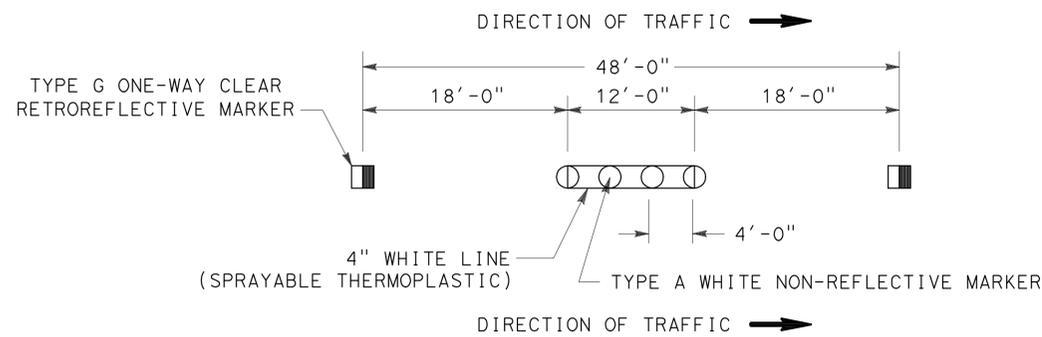
THE STATE OF CALIFORNIA OR ITS OFFICERS
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR
 THE ACCURACY OR COMPLETENESS OF SCANNED
 COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER
 S. CHOWDHURY
 No. 55418
 Exp. 12-31-10
 CIVIL
 STATE OF CALIFORNIA

NOTE:
 1. PAVEMENT MARKERS SHALL BE PLACED BEFORE
 SPRAYABLE THERMOPLASTIC STRIPE IS APPLIED.

PAVEMENT DELINEATION QUANTITIES

LOCATION	POST MILE	DETAIL No. OR PAVEMENT MARKING	REMOVE THERMOPLASTIC TRAFFIC STRIPE		THERMOPLASTIC TRAFFIC STRIPE (SPRAYABLE)		REMOVE PAVEMENT MARKER			PAVEMENT MARKER		
			4" WHITE	4" YELLOW	4" WHITE	4" YELLOW	RETRO-REFLECTIVE		NON-REFLECTIVE	RETRO-REFLECTIVE		NON-REFLECTIVE
			F+	F+	F+	F+	TYPE G	TYPE H	TYPE A	TYPE G	TYPE H	TYPE A
			Ea	Ea	Ea	Ea	Ea	Ea	Ea	Ea	Ea	
SBd 60	R7.87 (BRIDGE No. 54-0841)	13M	230		920		30		80	30		80
		25		305		305		12		12		
		27B	302		302							
		M-9	302	1208	302	1208		26		26		
	R8.37 (BRIDGE No. 54-0842)	13M	115		460		15		38	15		38
		25		152		152		6		6		
		27B	304		304							
		M-9	304	1218	304	1218		25		25		
	R9.94 (BRIDGE No. 54-1070)	13M	238		948		21		84	21		84
		25		316		316		7		7		
		27B	316		316							
		M-9	316	1264	316	1264		27		27		
SUB-TOTAL			2427	4463	4172	4463	66	103	202	66	103	202
TOTAL			2427	4463	8635		371			169		202



DETAIL 13 MODIFIED (13M)

NO SCALE

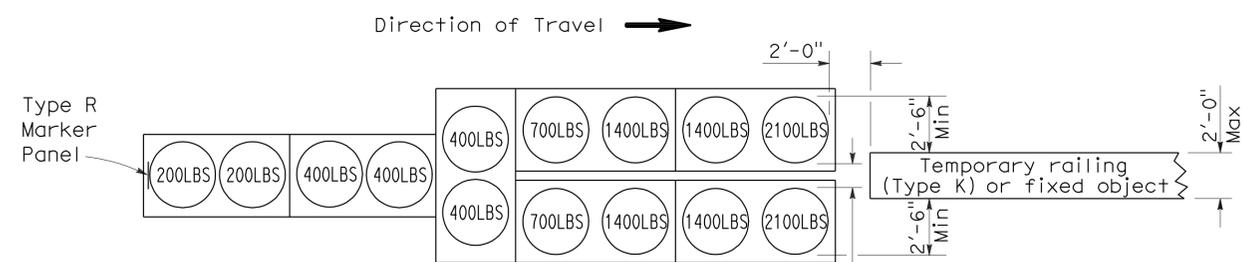
PAVEMENT DELINEATION QUANTITIES

PDQ-1

THIS PLAN ACCURATE FOR PAVEMENT DELINEATION WORK ONLY

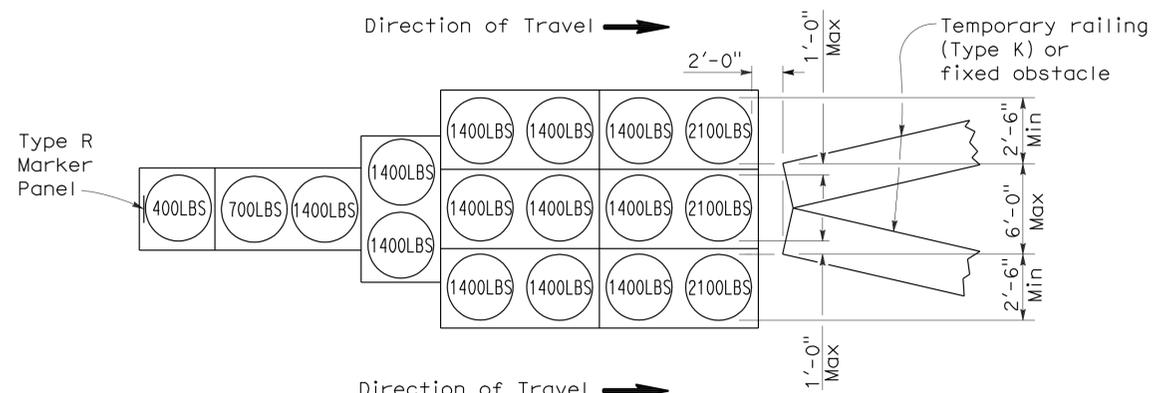
To accompany plans dated 1-25-10

2006 REVISED STANDARD PLAN RSP T1A



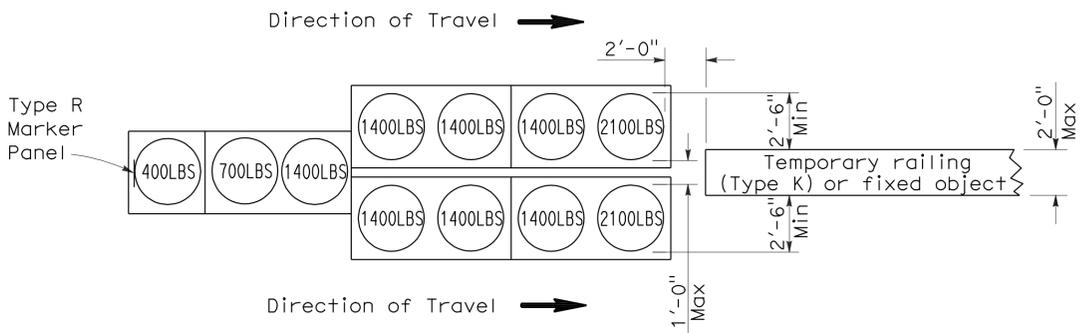
ARRAY 'TU14'

Approach speed 45 mph or more



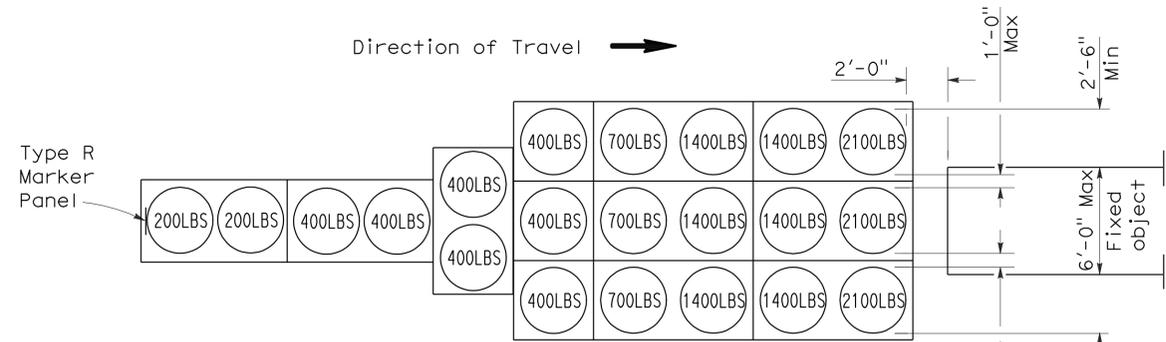
ARRAY 'TU17'

Approach speed less than 45 mph



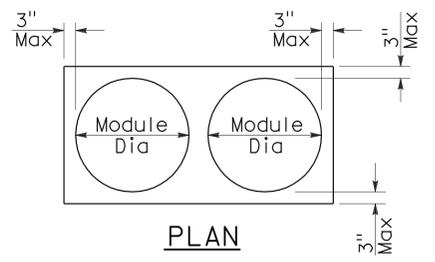
ARRAY 'TU11'

Approach speed less than 45 mph

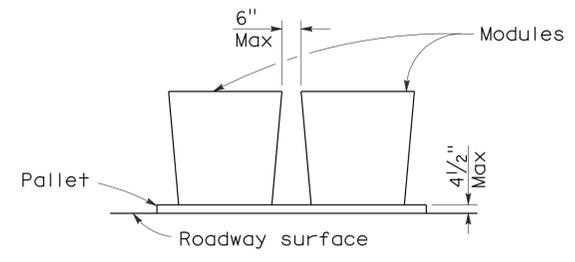


ARRAY 'TU21'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the top of Type R marker panel 1" below the module lid.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(UNIDIRECTIONAL)**

NO SCALE

RSP T1A DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1A
DATED MAY 1, 2006 - PAGE 211 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1A

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	5	9

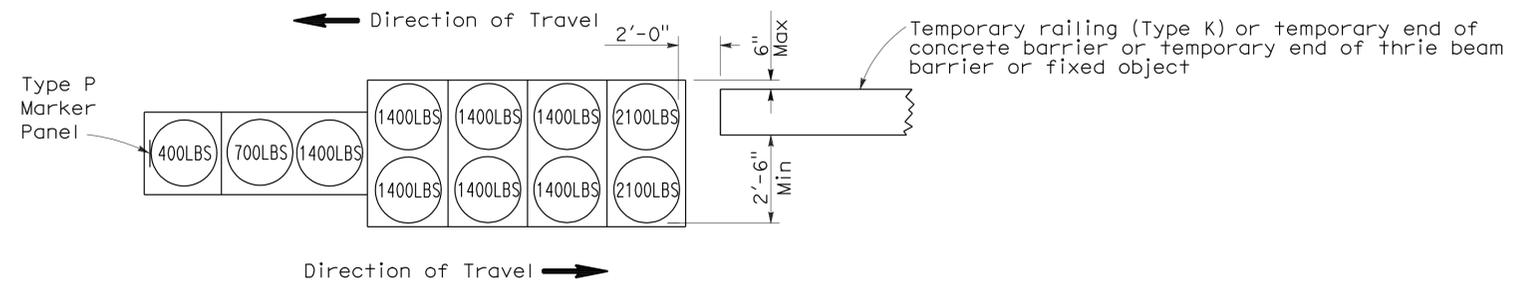
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

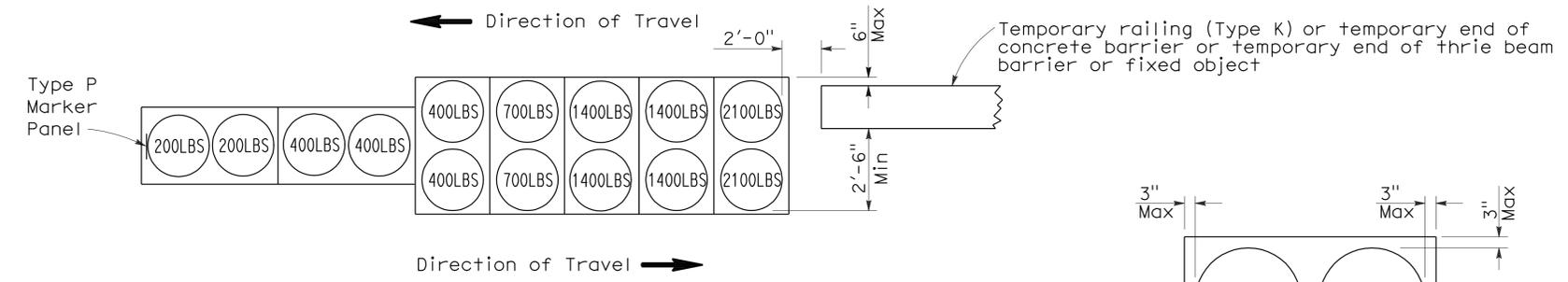
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-25-10



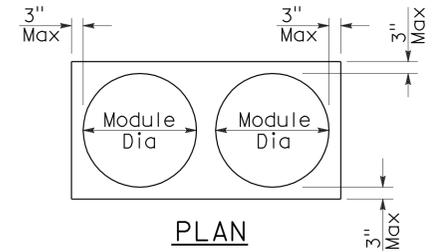
ARRAY 'TB11'

Approach speed less than 45 mph

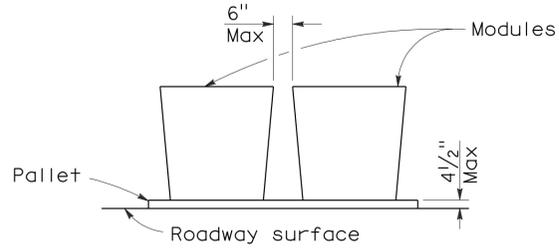


ARRAY 'TB14'

Approach speed 45 mph or more



PLAN



ELEVATION

CRASH CUSHION PALLET DETAIL

See Note 7

NOTES:

1. (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
2. All sand weights are nominal.
3. Temporary crash cushion arrays shall not encroach on the traveled way.
4. Place the Type P marker panel so that the bottom of the panel rests upon the pallet.
5. Refer to Standard Plan A73B for marker details.
6. Approach speeds indicated conform to NCHRP 350 Report criteria.
7. Use of pallets is optional.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**TEMPORARY CRASH CUSHION,
SAND FILLED
(BIDIRECTIONAL)**

NO SCALE

RSP T1B DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T1B
DATED MAY 1, 2006 - PAGE 212 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T1B

2006 REVISED STANDARD PLAN RSP T1B

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	6	9

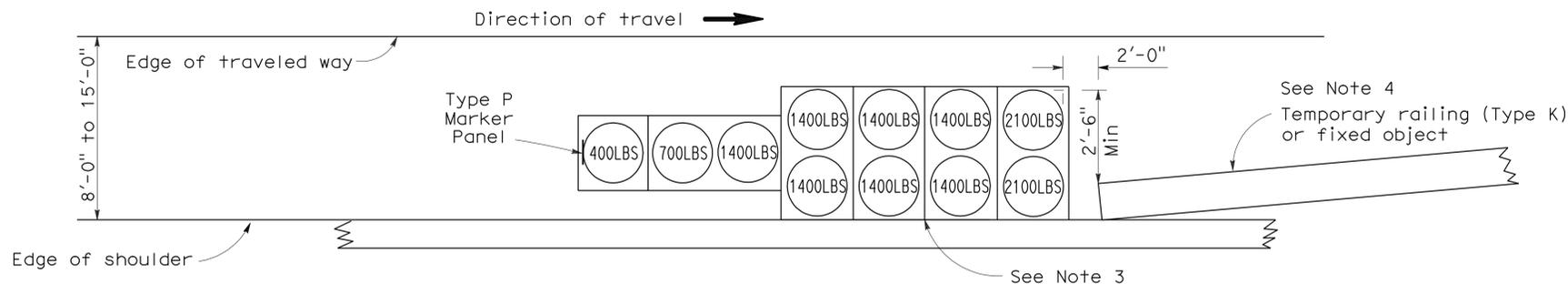
Randell D. Hiatt
REGISTERED CIVIL ENGINEER

June 6, 2008
PLANS APPROVAL DATE

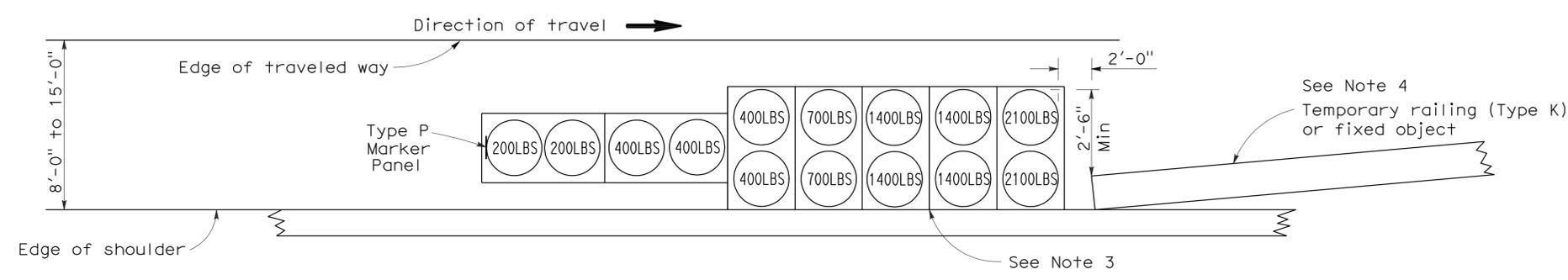
Randell D. Hiatt
REGISTERED PROFESSIONAL ENGINEER
No. C50200
Exp. 6-30-09
CIVIL
STATE OF CALIFORNIA

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To accompany plans dated 1-25-10



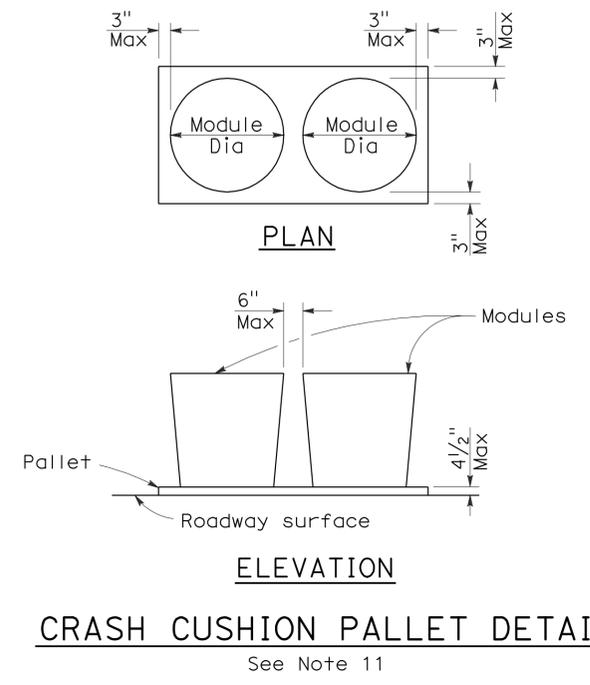
ARRAY 'TS11'
Approach speed less than 45 mph
See Note 9



ARRAY 'TS14'
Approach speed 45 mph or more
See Note 9

NOTES:

- (XXX) Indicates sand filled module location and weight of sand in pounds for each module. Module spacing is based on the greater diameter of the module.
- All sand weights are nominal.
- The temporary crash cushion arrays shown on this plan shall be used only in locations where there will be traffic on one side of the temporary crash cushion array.
- If the fixed object or approach end of the temporary railing is less than 15'-0" from the edge of traveled way, a temporary crash cushion is required in a construction or work zone.
- Temporary crash cushion arrays shall not encroach on the traveled way.
- Arrays for median shoulders shall conform to details shown on this plan for outside shoulders.
- Place the Type P marker panel so that the bottom of the panel rests upon the pallet and faces traffic.
- Refer to Standard Plan A73B for marker details.
- For shoulder widths less than 8'-0", appropriate approved crash cushion protection, other than sand filled modules, shall be provided at fixed objects and at approach ends of temporary railing. The specific type of crash cushion shall be as shown on the project plans or as specified in the Special Provisions, or if not shown on the project plans or specified in the Special Provisions, shall be as approved by the Engineer.
- Approach speeds indicated conform to NCHRP 350 Report criteria.
- Use of pallets is optional.



CRASH CUSHION PALLET DETAIL
See Note 11

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**TEMPORARY CRASH CUSHION,
SAND FILLED
(SHOULDER INSTALLATIONS)**
NO SCALE

RSP T2 DATED JUNE 6, 2008 SUPERSEDES STANDARD PLAN T2
DATED MAY 1, 2006 - PAGE 213 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T2

2006 REVISED STANDARD PLAN RSP T2

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	7	9

Edward Li 10/07/09
REGISTERED CIVIL ENGINEER DATE

1-25-10
PLANS APPROVAL DATE

No. C56706
Exp. 06/30/11
CIVIL
STATE OF CALIFORNIA

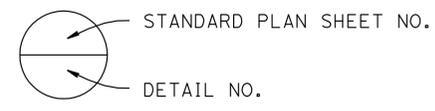
The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

INDEX TO PLANS

SHEET NO.	TITLE
1	GENERAL PLAN NO. 1
2	GENERAL PLAN NO. 2
3	MISCELLANEOUS DETAILS

STANDARD PLANS DATED MAY 2006

SHEET NO.	TITLE
A10A	ACRONYMS AND ABBREVIATIONS (SHEET 1 OF 2)
A10B	ACRONYMS AND ABBREVIATIONS (SHEET 2 OF 2)
A10C	SYMBOLS (SHEET 1 OF 2)
A10D	SYMBOLS (SHEET 2 OF 2)



LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of clean and treat existing bridge deck with methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.

ARCHIBALD AVENUE UC
QUANTITIES

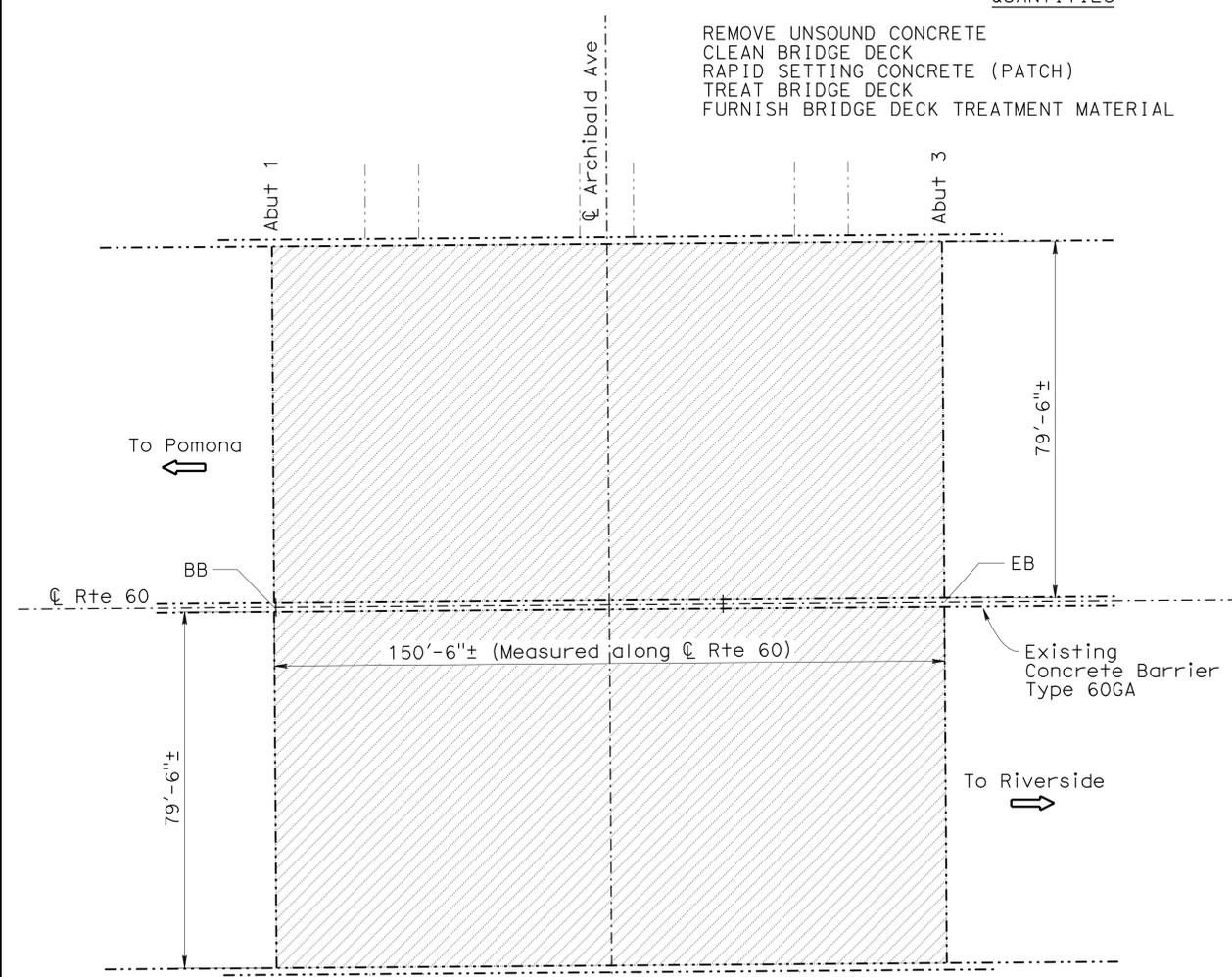
BR. NO. 54-0841

REMOVE UNSOUND CONCRETE	60	CF
CLEAN BRIDGE DECK	23,930	SQFT
RAPID SETTING CONCRETE (PATCH)	60	CF
TREAT BRIDGE DECK	23,930	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	300	GAL

LOWER DEER CREEK
QUANTITIES

BR. NO. 54-0842

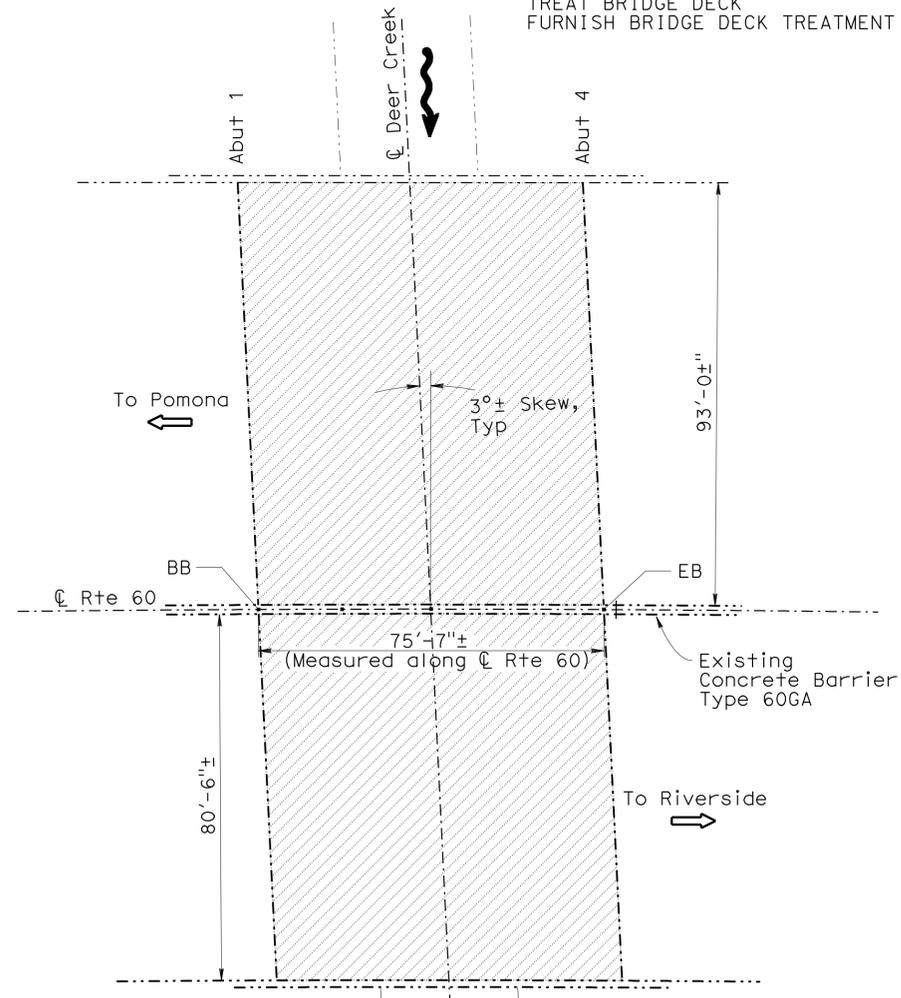
REMOVE UNSOUND CONCRETE	33	CF
CLEAN BRIDGE DECK	13,110	SQFT
RAPID SETTING CONCRETE (PATCH)	33	CF
TREAT BRIDGE DECK	13,110	SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	164	GAL



ARCHIBALD AVENUE UC

Br No. 54-0841, Rte 60, PM R7.87
1" = 20'

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.



LOWER DEER CREEK

Br No. 54-0842, Rte 60, PM R8.37
1" = 20'

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: HS20-44 AND ALTERNATIVE PERMIT DESIGN LOAD
	DETAILS	BY Tom Dang	CHECKED Edward Li	LAYOUT	BY Tom Dang
	QUANTITIES	BY Edward Li	CHECKED Ramesh Patel	SPECIFICATIONS	BY Dave Klein

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE	BRIDGE NO.
	STRUCTURE MAINTENANCE DESIGN	Various
		POST MILE

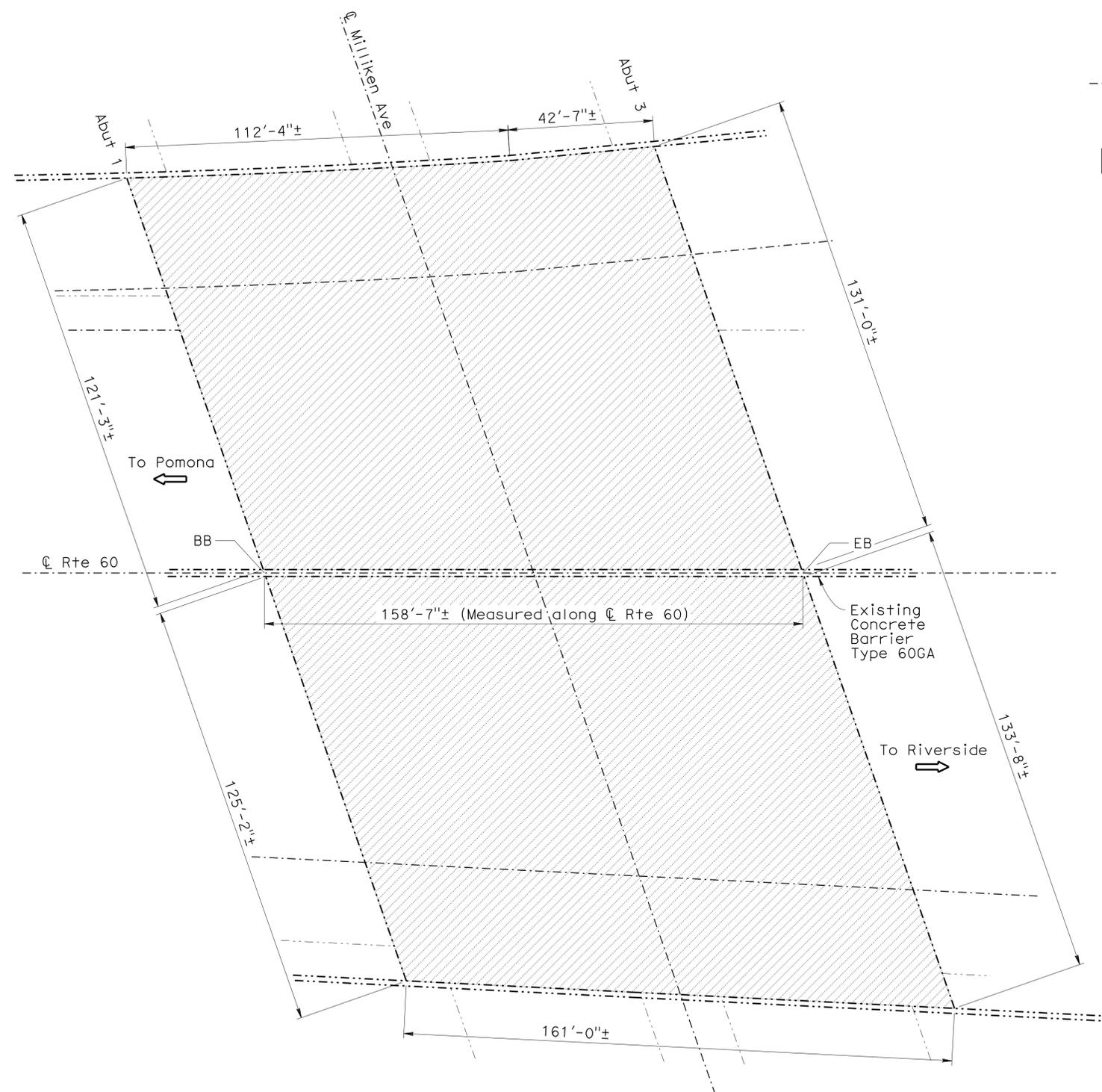
ROUTE 60 BRIDGES	
GENERAL PLAN NO. 1	

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	8	9

Edward Li 10/07/09
 REGISTERED CIVIL ENGINEER DATE
 1-25-10
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/11
 CIVIL
 STATE OF CALIFORNIA
 REGISTERED PROFESSIONAL ENGINEER
 EDWARD GUOJUN LI

LEGEND:

- Indicates existing.
- ➔ Indicates direction of traffic.
- ▨ Indicates limits of clean and treat existing bridge deck with methacrylate. Prior to bridge deck treatment, remove unsound concrete and patch with rapid setting concrete.



MILLIKEN AVENUE UC
 Br No. 54-1070, Rte 60, PM R9.94
 1" = 20'



MILLIKEN AVE UC BR. NO. 54-1070

QUANTITIES	
REMOVE UNSOUND CONCRETE	93 CF
CLEAN BRIDGE DECK	37,660 SQFT
RAPID SETTING CONCRETE (PATCH)	93 CF
TREAT BRIDGE DECK	37,660 SQFT
FURNISH BRIDGE DECK TREATMENT MATERIAL	470 GAL

NOTE:
 THE CONTRACTOR SHALL VERIFY ALL
 CONTROLLING FIELD DIMENSIONS
 BEFORE ORDERING OR FABRICATING
 ANY MATERIAL.

TONY D. BRAKE DESIGN ENGINEER	DESIGN	BY Edward Li	CHECKED Ramesh Patel	LOAD FACTOR DESIGN	LIVE LOADING: AND PERMIT DESIGN LOAD	HS20-44 AND ALTERNATIVE
	DETAILS	BY Tom Dang	CHECKED Gerald Joo	LAYOUT	BY Tom Dang	CHECKED Edward Li
	QUANTITIES	BY Edward Li	CHECKED Ramesh Patel	SPECIFICATIONS	BY Dave Klein	PLANS AND SPECS COMPARED Dave Klein

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
 DIVISION OF MAINTENANCE
 STRUCTURE MAINTENANCE DESIGN

BRIDGE NO.	Various	ROUTE 60 BRIDGES GENERAL PLAN NO. 2
POST MILE	Varies	

USERNAME => fhmikes DATE PLOTTED => 27-JAN-2010 TIME PLOTTED => 11:12

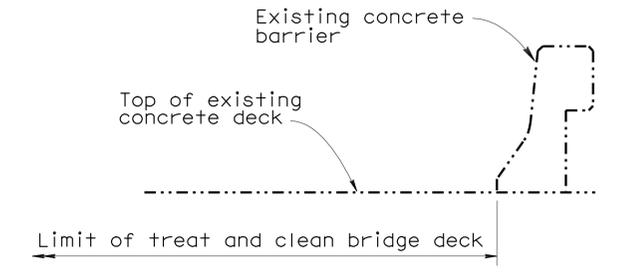
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No	TOTAL SHEETS
08	SBd	60	R7.9/R9.9	9	9

Edward Li 10/07/09
 REGISTERED CIVIL ENGINEER DATE
 1-25-10
 PLANS APPROVAL DATE
 No. C56706
 Exp. 06/30/11
 CIVIL
 STATE OF CALIFORNIA
 The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

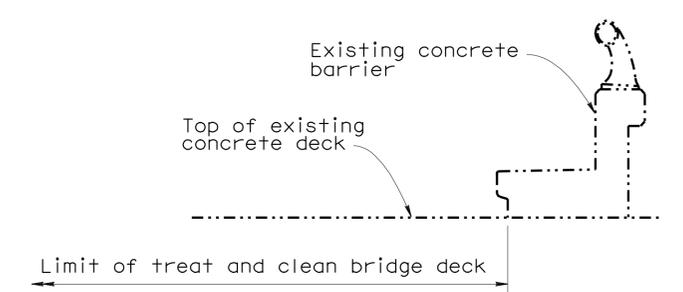
DECK REPAIR TABLE REMOVE UNSOUND CONCRETE AND RAPID SETTING CONCRETE (PATCH)

BRIDGE NAME	BRIDGE NUMBER	APPROXIMATE AREA DAMAGED (%)	APPROXIMATE DEPTH (INCHES)
ARCHIBALD AVENUE UC	54-0841	1	3
LOWER DEER CREEK	54-0842	1	3
MILLIKEN AVENUE UC	54-1070	1	3

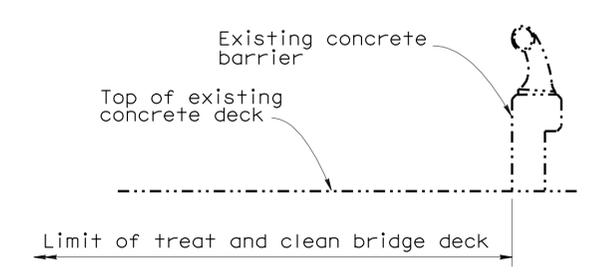
- DECK REPAIR NOTES:**
- Existing reinforcement shall be protected in place during unsound concrete removal and patching operations.
 - It is responsibility of the Contractor to repair any reinforcement that is accidentally cut by saw cutting operations.
 - When existing transverse reinforcement is exposed in the deck surface, saw cutting may be waived with the approval of the Engineer.
 - The saw cut depth shall not exceed $\frac{3}{4}$ inch or the concrete cover over the top steel reinforcing bars, whichever is less.
 - Remove unsound Portland Cement concrete and unsound concrete patches to expose sound, hard concrete substrate. Replace original deck surface with rapid setting concrete patch.



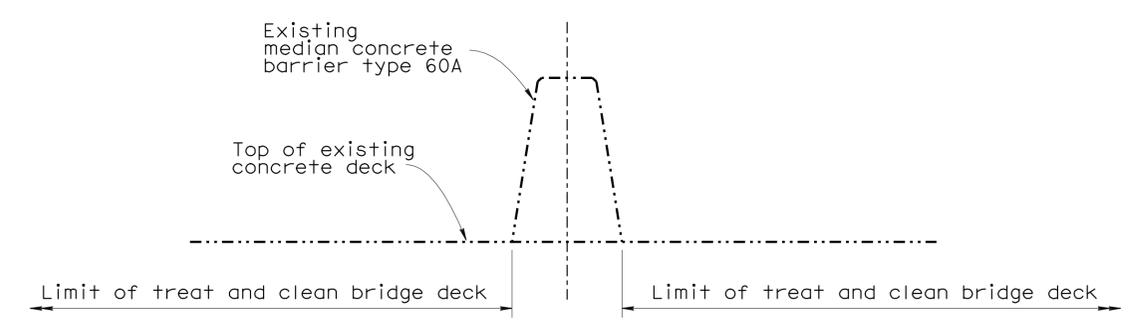
EOD BARRIER



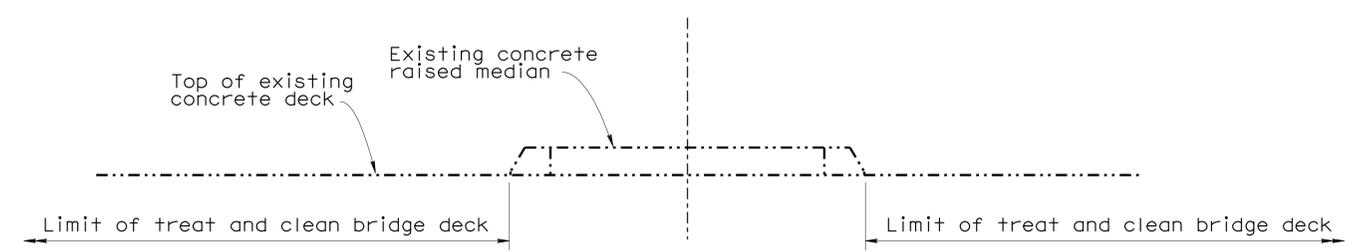
SIDEWALK BARRIER TYPE 2



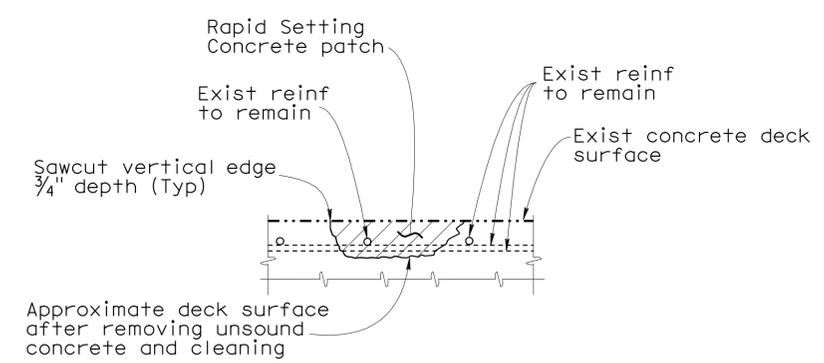
SIDEWALK BARRIER TYPE 1



MEDIAN BARRIER



RAISED MEDIAN



DECK DAMAGE REPAIR DETAIL

Location will be determined by the Engineer. Reinforcement may be encountered during deck concrete removal and is to remain undamaged.

TYPICAL LIMITS OF DECK WORK

NO SCALE

NOTE:
THE CONTRACTOR SHALL VERIFY ALL CONTROLLING FIELD DIMENSIONS BEFORE ORDERING OR FABRICATING ANY MATERIAL.

STRUCTURES MAINTENANCE DETAIL SHEET (ENGLISH) (REV. 10/25/05)	DESIGN	BY Edward Li	CHECKED Ramesh Patel	STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	DIVISION OF MAINTENANCE STRUCTURE MAINTENANCE DESIGN	BRIDGE NO.	ROUTE 60 BRIDGES MISCELLANEOUS DETAILS	
	DETAILS	BY Tom Dang	CHECKED Edward Li			Various		
	QUANTITIES	BY Edward Li	CHECKED Ramesh Patel			Varies		
ORIGINAL SCALE IN INCHES FOR REDUCED PLANS				0 1 2 3	CU 08 EA 0L4901	DISREGARD PRINTS BEARING EARLIER REVISION DATES	REVISION DATES	SHEET 03 OF 03

TIME PLOTTED => 11:12
USERNAME => hrmikes DATE PLOTTED => 27-JAN-2010